

REMARKS

Applicant respectfully requests reconsideration of this application as amended. Claims 1-30 have been cancelled without prejudice. New claims 31-47 have been added. Therefore, claims 31-47 are presented for examination. These remarks are in response to the final office action, mailed February 09, 2009.

35 U.S.C. § 112 Rejection

Claims 1-30 are rejected under 35 U.S.C. §112, second paragraph. Applicant respectfully disagrees with this rejection.

Claims 1-30 have been cancelled without prejudice. Accordingly, Applicants contend that the rejection of claims 1-30 is moot.

35 U.S.C. § 103 Rejection

Claims 1-3, 5-7, 9-11, 13-26 and 28-30 are rejected under 35 U.S.C. §103(a) as being unpatentable over Flynn, et al., U.S. Patent No. 5,907,702 ("*Flynn*") in view of applicants admitted prior art "AAPA."

Claims 4, 8, 12 and 27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Flynn, et al., U.S. Patent No. 5,907,702 ("*Flynn*") in view of applicants admitted prior art "AAPA" and in view of Joy, et al U.S. Patent No. 6,341,347 ("*Joy*").

Claims 1-30 have been cancelled without prejudice. Accordingly, Applicants contend that the rejection of claims 1-30 is moot.

New Claims

New claims 31-47 have been added. Applicants respectfully contend that claims

31-47 are distinct from and allowable over the cited reference. For example, Flynn discloses “method and apparatus decreasing thread switch latency in a multithread processor stores instructions for an active thread in a primary instruction queue, and *stores instructions for a dormant thread in a thread switch instruction queue*. The *active thread is the thread currently being processed by the multithread processor*, while the dormant thread is a thread not currently being executed by the multithread processor” (abstract; emphasis added).

Claim 31, as amended, recites “a virtual state mechanism to form a critical update loop that does not include state update logic, the critical update loop being formed each time an actual active thread state of a thread of a plurality of threads is detected, the critical update loop being formed between a virtual state reload multiplexer and a virtual thread state structure” (emphasis added). Flynn relates to *dormant thread* and *storing instructions for a dormant thread in a thread switch instruction queue*. There is no teaching or reasonable suggestion a “critical update loop that does not include state update logic” or that is “being formed each time an actual active thread state of a thread of a plurality of threads is detected” as recited by claim 31.

Claim 31, as amended, further recites in pertinent part “the virtual state reload multiplexer to receive the actual active thread state of the thread; and a virtual thread state structure coupled with the virtual state reload multiplexer, the virtual thread state structure having one or more virtual thread state registers to generate a virtual active thread state based on the actual active thread state” (emphasis added).

There is no teaching or reasonable suggestion of a virtual active thread that is generated based on the actual thread state as recited by claim 31. Flynn relates to “*dormant thread*”. The word “*dormant*” defined as “*temporarily devoid of external*

activity” or “*temporarily in abeyance yet capable of being activated*” (Merriam-Webster Dictionary, copyright © 2004, version 3.1). Accordingly, “*dormant*” is essentially an *active thread that is temporarily inactive* which is clearly not equivalent to a virtual of claim 31 and consequently, Flynn does not teach or reasonably suggest virtual active thread that is generated based on the actual thread state as recited by claim 31.

Applicants respectfully submit that Flynn, AAPA and Joy, neither individually nor when combined in any combination, teach or reasonably suggest the limitations of claim 31. Accordingly, Applicants contend that new claims 31-47 are distinct from and allowable over the cited references.

Conclusion

In light of the foregoing, reconsideration and allowance of the claims is hereby earnestly requested.

Invitation for a Telephone Interview

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

Request for an Extension of Time

Applicants respectfully petition for a one month extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a). Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension.

Charge our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

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/Aslam A. Jaffery/

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